

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-2. (Canceled)

3. (Currently Amended) ~~The method for forming a bump according to claim 1, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening,

the insulating film being thicker at ~~an end~~the periphery of the pad than at ~~the~~ center of the pad.

4. (Currently Amended) The method for forming a bump according to claim 3, the through hole being formed ~~at an interior~~inside the periphery of the pad and at a ~~larger~~ portion of the ~~pad, pad~~ where the insulating film is thinner.

5. (Canceled)

6. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and the opening being formed so as to be larger than a periphery of the through hole so as to define a region for forming upon which to form the first metal layer and to leave an exposed portion of the pad, the second metal layer being formed so as to cover the exposed portion of the pad.

7. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and the first metal layer being formed in the through hole, the resist layer being removed, and then the second metal layer being formed so as to cover the first metal layer.

8. (Canceled)

9. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and the first metal layer being formed so as to protrude from the through hole so that the first metal layer has a tip having a width which is larger than a width of the through hole.

10. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and the second metal layer being formed so as to protrude from the through hole so that the second metal layer has a tip having a width which is larger than a width of the through hole.

11. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second

metal layer being formed on the first metal layer, and the first metal layer being formed by electroless plating.

12. (Currently Amended) ~~The method for forming a bump according to claim 5, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and the second metal layer being formed by electroless plating.

13. (Currently Amended) ~~The method for forming a bump according to claim 1, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, and further comprising the step of providing a solder on the metal layer.

14. (Currently Amended) The method for forming a bump according to claim 13, the step of providing the solder includes providing a resin layer at ~~a~~ the periphery of the metal layer

other than on at least an upper face of the metal layer so that the solder is provided at a portion of the metal layer that is exposed from the resin layer.

15. (Currently Amended) The method for forming a bump according to claim 13, the upper surface of the metal layer being formed so as to be substantially flush with the upper surface of the resist layer, and the solder being provided at a portion of the metal layer exposed from the resist layer.

16. (Currently Amended) ~~The method for forming a bump according to claim 8, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, the first metal layer being formed in the through hole, and then the second metal layer being formed on the first metal layer without removing the resist layer, and the upper surface of the first metal layer being formed so as to be lower than the upper surface of the resist layer, and the second metal layer being provided by a printing process using the resist layer as a mask.

17. (Currently Amended) ~~The method for forming a bump according to claim 8, A~~
method for forming a bump, comprising:

forming a resist layer that defines a through hole which overlaps at least a portion of a pad covered with an insulating film;

forming an opening in the insulating film after forming the resist layer, the opening exposing at least a part of the pad; and

forming a metal layer constituting a bump in the opening after forming the opening, the metal layer connected to the portion of the pad exposed in the opening, the second metal layer being formed on the first metal layer, the first metal layer being formed in the through hole, and then the second metal layer being formed on the first metal layer without removing the resist layer, and further including the step of forming a conductive film on the insulating material so as to be electrically connected to the first metal layer at ~~a~~ the periphery of the through hole, the upper surface of the first metal layer being formed so as to be lower than the upper surface of the resist layer, and the second metal layer being provided by electroplating using the conductive film as an electrode.

18. (Currently Amended) The method for forming a bump according to claim 115, the first metal layer including a nickel-containing material.

19. (Currently Amended) The method for forming a bump according to claim 115, the second metal layer including a gold-containing material.

20. (Currently Amended) The method for forming a bump according to claim 115, the second metal layer including a solder.

21. (Original) The method for forming a bump according to claim 13, the solder including Sn, or Sn and at least one metal selected from the group consisting of Ag, Cu, Bi, and Zn.

22. (Original) The method for forming a bump according to claim 12, the second metal layer including first and second Au layers, the first Au layer being formed on the first metal layer by immersion plating, and the second Au layer being formed on the first Au layer by autocatalytic plating.

23. (Original) The method for forming a bump according to claim 12, the second metal layer including an Au layer and a Sn layer, the Au layer being formed on the first metal

layer by immersion plating, and the Sn layer being formed on the Au layer by autocatalytic plating.

24. (Original) The method for forming a bump according to claim 23, the step of forming the Sn layer includes forming the Sn layer with an electroless tin plating solution that contains at least one of Cu and Ag so as to deposit Sn and at least one of Cu and Ag.

25. (Currently Amended) A method for manufacturing a semiconductor device, comprising the method for forming a bump according to claim 11, the metal layer being formed on the pad formed in a semiconductor chip.

26. (Previously Presented) The method for making a semiconductor device according to claim 25, further including the step of electrically connecting the bump to a lead, the metal layer in the bump and the lead thereby forming an eutectic crystal.

27. (Original) A semiconductor device manufactured by a method for making a semiconductor device according to claim 25.

28-30. (Canceled)

31. (Currently Amended) A circuit board, ~~comprising:~~ board comprising the semiconductor device according to claim 27.

32. (Currently Amended) An electronic ~~device, comprising:~~ device comprising the semiconductor device according to claim 27.

33. (New) The method for forming a bump according to claim 11, the through hole being formed so as not to extend beyond the periphery of the pad.

34. (New) The method of forming a bump according to claim 11, the first metal layer being formed in the through hole, and then the second metal layer being formed on the first metal layer without removing the resist layer.